What is claimed is:

- 1. Isolated RTD polypeptide having at least about 80% amino acid sequence identity with native sequence RTD polypeptide comprising amino acid residues 1 to 386 of Fig. 1A (SEQ ID NO:1).
- 2. The RTD polypeptide of claim 1 wherein said RTD polypeptide has at least about 90% amino acid sequence identity.
- 3. The RTD polypeptide of claim 2 wherein said RTD polypeptide 10 has at least about 95% amino acid sequence identity.
 - 4. Isolated native sequence RTD polypeptide comprising amino acid residues 1 to 386 of Fig. 1A (SEQ ID NO:1).
 - 5. Isolated extracellular domain sequence of RTD polypeptide comprising amino acid residues 56 to 212 of Fig. 1A (SEQ ID NO:1).
 - 6. The extracellular domain sequence of claim 5 comprising amino acid residues 1 to 212 of Fig. 1A (SEQ ID NO:1).

7. A chimeric molecule comprising the RTD polypeptide of claim 1 or the extracellular domain sequence of claim 5 fused to a heterologous amino acid sequence.

- 8. The chimeric molecule of claim 7 wherein said heterologous amino acid sequence is an epitope tag sequence.
- 9. The chimeric molecule of claim 7 wherein said heterologous amino acid sequence is an immunoglobulin sequence.
- 10. The chimeric molecule of claim 9 wherein said immunoglobulin sequence is an IgG.

An antibody which specifically binds to the RTD polypeptide of claim 1 or the extracellular domain sequence of claim 5.

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- 12 The antibody of claim 11 wherein said antibody is a monoclonal antibody.
- 13. The antibody of claim 11 which is an agonist antibody.

14. Isolated nucleic acid encoding the RTD polypeptide of claim 1 or the extracellular domain sequence of claim 5.

- 15. The nucleic acid of claim 14 wherein said nucleic acid encodes native sequence RTD polypeptide comprising amino acid residues 1 to 386 of Fig. 1A (SEQ ID NO:1).
- 16. A vector comprising the nucleic acid of claim 14.
- 17. The vector of claim 16 operably linked to control sequences recognized by a host cell transformed with the vector.
- 18. A host cell comprising the vector of claim 16.
- 19. A process of using a nucleic acid molecule encoding RTD polypeptide to effect production of RTD polypeptide comprising culturing the host cell of claim 18.
- 20. A non-human, transgenic animal which contains cells that express nucleic acid encoding RTD polypeptide.
- 21. The animal of claim 20 which is a mouse or rat.
- 22. A non-human, knockout animal which contains cells having an altered gene encoding RTD polypeptide.
 - 23. The animal of claim 22 which is a mouse or rat.
- 24. An article of manufacture, comprising a container and a composition contained within said container, wherein the

composition includes RTD polypeptide or RTD antibodies.

- The article of manufacture of claim 24 further comprising instructions for using the RTD polypeptide or RTD antibodies in vivo or ex vive
- A method of modulating apoptosis in mammalian cells comprising exposing said cells to RTD polypeptide.
- The method of claim 26 wherein said cells are exposed to Apo-2 10 ligand.

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